

REMARKS/ARGUMENTS

Reexamination and reconsideration of this Application, withdrawal of the rejection, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the attached evidence and remarks that follow. Claims 3, 4, 8, 9, 12-14, 20, 21, 24-27, and 33-45 are pending in the application. Claim 22 has been cancelled herein without prejudice or disclaimer.

Claim 22 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner objects to the use of the term “medium” with respect to triglycerides. Applicants have cancelled claim 22 in order to expedite prosecution. However, Applicants note that one of ordinary skill in the art would readily understand the scope of medium chain triglycerides and, in fact, that term has acquired a specific meaning in the art. Nonetheless, that claim has been cancelled and the rejection is now moot.

All claims of record have been rejected as obvious over a combination of U.S. Patent No. 3,251,365 to Keith II *et al.* in view of U.S. Patent No. 3,390,686 to Irby Jr. *et al.* With respect to claim 9, the above-noted references are further combined with U.S. Patent No. 3,459,194 to Eichel. With respect to claim 12, the above-noted references are combined with U.S. Patent No. 5,714,126 to Frund. With respect to claims 41-44, the above-noted references are combined with U.S. Patent No. 5,979,459 to Schneider.

The Examiner relies upon the Keith patent as disclosing a conventional filter arrangement comprising two filter plugs and a cavity therebetween containing an adsorbent material. The Examiner relies upon the Irby patent as disclosing the use of a breakable capsule within a filter. The Examiner concludes that one of skill in the art would combine the teachings of these references to produce the filter arrangement of claim 27. Applicants respectfully traverse this rejection.

Applicants respectfully submit that the combination of the teachings of the Keith and Irby patents would not result in the claimed subject matter. In particular, it is noted that the Irby patent is directed to tobacco smoked filters comprising frangible capsules containing a smoke-treating liquid and particles of active carbon. The Irby patent stresses that the carbon particles

are intended to be in close proximity to the frangible capsules so that the carbon particles can serve as a reservoir for the moisture released when the capsules are ruptured. The Irby patent repeatedly refers to the particles of active carbon as “moisturized” (see column 2, lines 18-36). In each illustrated embodiment of Irby, the carbon particles and the frangible capsules are in close proximity. For example, in Fig. 1, a filter is shown comprising embedded frangible capsules dispersed with embedded particles of carbon material in the same section of filter material. The stated purpose for mixing the capsules and carbon particles in the same filter segment is to allow the liquid from the ruptured capsules to serve as a “reservoir for maintaining the moisture content of the carbon particles” (column 2, lines 25-26). In the embodiment of Fig. 2, the filter section comprises a single large capsule containing a slurry of carbon particle suspended in the treating liquid. The clear intent of the teachings of Irby is to ensure that the liquid from the capsules is available for replenishing the liquid content of the carbon particles.

As noted by the Examiner, the Keith patent teaches the use of a cavity defined between filter segments that can be filled with a granular adsorbent material. One of ordinary skill in the art combining the Irby and Keith references would not arrive at the present invention. Instead, one of ordinary skill in the art would intermix the frangible capsules of Irby with the granular adsorbent material in the cavity of the Keith patent based on the clear suggestion in Irby to arrange carbon particles and frangible capsules in close proximity and in the same filter segment so that the liquid from the capsules will be available to infiltrate the carbon particles.

In contrast, the invention of claim 27 recites the presence of a breakable capsule positioned in a compartment in the first section of filter material downstream from the compartment containing an adsorbent material. The breakable capsule of claim 27 is clearly not intermixed with an adsorbent material as required by the Irby patent. In fact, as described in Applicants’ specification, the intent of the present invention is to avoid mixing the liquid from the capsule with the adsorbent material (see page 21). Accordingly, one of ordinary skill in the art would actually view the Irby patent as teaching away from the claimed filter configuration as the claimed configuration avoids excessive contact between the adsorbent and the contents of the frangible capsule, which is counter to the express teachings of Irby. For at least this reason,

Applicants respectfully request reconsideration and withdrawal of all rejections relying on the combination of these two references.

Additionally, Applicants respectfully traverse the rejection of claims 41-44 for at least one additional reason. In particular, Applicants object to the combination of the newly-cited Schneider patent with the remaining patents of record. Applicants respectfully submit that one of ordinary skill in the art would not be motivated to combine the teachings of the Schneider patent with the Keith patent in order to arrive at the present invention as contemplated in the rejection. Instead, it is noted that the Schneider patent is directed to a ventilated filter cigarette having a coaxial filter element therein. The coaxial filter element comprises a filter jacket and a filter core, wherein the fibers of the filter jacket have a lower dpf. Using this configuration, according to the inventors, when the ventilation zone is open, smoke passes primarily through the filter core. In the only filter embodiment even remotely similar to the configuration of the present invention or the Keith patent, the Schneider patent suggests a cigarette filter having a standard filter segment adjacent to the tobacco rod, a chamber that may be filled with a filtering material, and a mouth-end coaxial filter according to the invention.

Applicants note that at least one other reference of record that is more closely directed to plug/space/plug filter arrangements such as described in the Keith patent actually teaches away from the suggestion in the Schneider reference to place the more dense fibrous tow on the tobacco-side of the filter element. In particular, the Examiner's attention is directed to U.S. 2002/0166563, which describes a multi-component filter comprising a bed of adsorbent material located adjacent to a tobacco-side filter segment 18. The '563 publication clearly states that all filter components 17, 18, 20, and 22 should have "low particulate efficiency", and among all of those segments, the tobacco end component 18 should have the lowest particulate efficiency because it is upstream from the ventilation and therefore has greater effect upon mainstream smoke (see paragraph 43). This teaching away is more compelling in relation to the present invention than the teachings of the Schneider patent, which does not describe any specific embodiment comprising an adsorbent material at all, and merely suggests that the filter element could comprise a filtering material in a central chamber. The Schneider patent does not provide even a single specific example of such a configuration. In contrast, the inventors of the '563

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patent application devote their entire invention to cigarette filters having a central compartment filled with an adsorbent material and specifically address the particulate removal efficiency of various filter plugs surrounding such a bed of adsorbent material. Thus, Applicants respectfully submit that the teaching away in the '563 patent application is far more indicative of any motivation to one of ordinary skill in the art than the Schneider patent. An escapable conclusion is that one of ordinary skill in the art, having the benefit of all of these references including the '563 patent application, would be expressly disinclined to modify the Keith plug/space/plug filter arrangement to include a tobacco-end filter segment having a higher particulate removal efficiency. For this additional reason, Applicants respectfully request reconsideration and withdrawal of the rejection relying upon the Schneider reference.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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